

Zoological results of the *Daily Mail* Himalayan Expedition 1954: notes on some birds of Eastern Nepal¹

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INTRODUCTION

During my stay in Nepal as a member of the *Daily Mail* Himalayan Expedition 1954, mainly in search of the abominable snowman (=yeti), I made a small collection of, and observations on, birds as and when opportunities were available. The area covered extended from Kathmandu east to extreme eastern Nepal (Nepal-West Bengal frontier), and the period, between the last week of January and first week of July, 1954. From mid-February to the end of May, however, I worked in Khumbu, in the vicinity of Mount Everest, within the altitudinal range of approximately 3800 to 6000 metres, where most of the specimens were collected. Except in Khumbu and in one or two other areas of collection, observations were made on birds seen mainly along the tracks.

Ornithology of eastern Nepal is not well covered in scientific literature. A few ornithological reports, such as those of Gray (1863) on Hodgson's collection, Stevens (1923-1925), Ripley (1950), Rand & Fleming (1957), Biswas (1960-1964, 1969), Fleming & Traylor (1961, 1964, 1968), and Fleming (1968) covered parts of eastern Nepal. The most comprehensive account of birds of the high-altitude areas of Khumbu has, however, been given by Diesselhorst (1968).

In the following pages, notes on the birds collected and/or observed by the writer in Nepal east of Kathmandu are presented. The number of species and subspecies involved is 133, of which 67 are represented in the collection by 197 specimens.

In the list that follows, forms whose representatives were not collected have been indicated by asterisks preceding their names which are mostly binomial, except where I was reasonably sure of their subspecific identity.

Ecological notes covering many of the collecting localities have already been given in an earlier paper (Biswas & Khajuria 1957), but those that have not been included there are given hereunder.

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Bung (c. 27°31'N, 86°50'E): This is a large village situated in Okhal-dhunga district on the right bank of Hongu Khola and one of its tributaries. It has extensive cultivation on the lower slopes, but higher up there is a good forest of rhododendrons, fir, magnolias, etc. Collections were made in the forest at about 2740 m altitude.

Chainpur (c. 1525 m ; 27°18'N, 87°20'E): Situated on the ridge between Hinwan and Pilua Kholas (both tributaries of the Arun river) in the Arun watershed, Chainpur is a fairly large village of Dhankuta district. The slopes are extensively cultivated and the terraced fields are dotted with clumps of large trees ; patches of forest here and there break the monotony of the sloping landscape.

Dingboche (c. 4400 m ; 27°54'N, 86°57'E): It is a small summer village situated on a wide slope on the right bank of Imja Khola. It has about a dozen or so stone huts and small patches of cultivation where potatoes and *kuru* (a kind of barley) are grown. Alpine scrub and grass form the main natural vegetation of the area.

Gnachu (c. 4800 m ; 27°50'N, 86°36'E): Another small summer village used by graziers and situated off the left edge of the Thami glacier. The vegetation of Gnachu consists mostly of dwarf rhododendrons and junipers, grass and other alpine scrub.

[Below] **Khumjung** (c. 3810 m ; 27°49'N, 86°44'E): A small patch of forest consisting chiefly of fir, birch and rhododendrons. A narrow footpath from the Namche Bazar-Thyangboche trail passes through this forest.

Longbonga Lake (c. 4500 m ; 27°56'N, 86°43'E): This is the lower-most in the chain of lakes on the upper reaches of the Dudh Kosi river, in the western ablation valley of the Ngojumba glacier. It looks as if the narrow, trickling Dudh Kosi has expanded here into an irregularly triangular lake, the basal side of which is bounded by a steep mountainous wall that separates this valley from that of the Bhote Kosi. The eastern shore of the lake is a small, narrow, flat land covered with dwarf rhododendrons and other alpine scrub.

Pankhoma (c. 3050 m ; 27°35'N, 86°45'E): Situated near the crest of a ridge between the Dudh Kosi river and Inukhu Khola in Okhal-dhunga district. The area is heavily forested.

Phurte (c. 3900 m ; 27°49'N, 86°42'E): A small village situated on the left bank of the Bhote Kosi river, a little to the west of Namche Bazar. There are a few small plots of cultivation and forests of junipers, rhododendrons, birch, etc. around.

Tesinga (c. 3610 m ; 27°50'N, 86°44'E): A small village situated on the right bank of the Dudh Kosi river, almost across from the Base Camp. A little hill stream trickles through the wide cultivated area. There are not many trees around, there being only a few fir, birch and

rhododendrons, and some scrub lining the Namche Bazar-Thyangboche track which passes a little below the village.

Thammu (c. 4150 m ; 27°49'N, 86°41'E) : A small village located on the left bank of the Bhote Kosi river, further to the west of Phurte, to which it is very similar ecologically.

Thonak Lake (c. 5000 m ; 28°59'N, 86°41'E) : A glacier lake situated about 2 km north of Gokyo (Dudh Pokhari) in the western ablation valley of the Ngojumba glacier. It is bounded on the west, north and north-east by mountainous walls, and on the east and south there are moraines. Except for a little dwarf alpine scrub and grass on the moraines there is no prominent vegetation around.

Thyangbo (c. 4680 m) : A few stone huts with small plots of cultivation here and there, and some alpine scrub and grass, adorn this small summer village located in the Thami Valley a little to the east of Gnachu.

Toujung Lake (c. 4800 m ; 27°57'N, 86°43'E) : It is a small, irregularly triangular lake on the Dudh Kosi river, lying between Dudh Pokhari and the Longbonga Lake. There is very little vegetation in this area except some scrub and grass on the lateral moraine of the Ngojumba glacier.

The altitudes given for some of the collecting localities by Biswas & Khajuria (1957) are wrong. Their correct altitudinal figures and their geographical locations are given below :

Base Camp : c. 3800 m ; 27°49'N, 86°45'E.

Chugima : c. 4850 m ; 27°56'N, 86°44'E.

Ghat : c. 2750 m ; 27°43'N, 86°43'E.

Gokyo (Dudh Pokhari) : c. 4900 m ; 28°1'N, 86°43'E.

Hunko : c. 4050 m ; 27°50'N, 86°40'E.

Marlung : c. 4700 m ; 27°53'N, 86°39'E. (Across Bhote Kosi river from Marlung : c. 4800 m).

Nah (= Nang) : c. 4400 m ; 27°55'N, 86°43'E.

Namche Bazar : c. 3800 m ; 27°49'N, 86°43'E.

Pangboche : c. 4600 m ; 27°51'N, 86°47'E.

Paré : c. 3900-4000 m ; 27°49'N, 86°40'E.

Phakding : c. 3000 m ; 27°44'N, 86°43'E.

Phalong Karpo : c. 4570 m ; 27°55'N, 86°49'E.

Pheriche : c. 4300 m ; 27°54'N, 86°49'E.

Phorcha : c. 3960 m ; 27°51'N, 86°45'E.

Tarangan : c. 4200 m ; 27°52'N, 86°38'E.

Thami : c. 4400 m ; 27°49'N, 86°39'E.

Thugla : c. 4700 m ; 27°56'N, 86°49'E.

Yaral : c. 3900 m ; 27°51'N, 86°48'E.

In the following pages the measurements of the birds are given in millimetres, and the unsexed specimens indicated by a dash '—'. Sex determined from plumage and not from examination of gonad is indicated in parentheses, (♂) or (♀).

Order FALCONIFORMES

Family Accipitridae

****Elanus caeruleus* (Desfontaines): Blackwinged Kite**

A single example of the Blackwinged Kite was observed near Kiranti-chhāp, at about 1500 m (c. 27°38'N, 86°4'E), Charnawati Valley, Ramechhāp district, in the afternoon of 31 January. It was quietly perching on a tree overlooking a cultivated field.

***Milvus migrans govinda* Sykes: Pariah Kite**

Dhankuta district: Chainpur: 1— (16 June).

Measurements: 1—: Wing 465, tail 203, bill 40.

Colours of bare parts: Iris dark brown, bill black, cere and gape pale wax yellow, legs and feet wax yellow, claws black.

The Pariah Kite was found up to about 1525 m in eastern Nepal occurring in and about villages.

***Milvus (migrans) lineatus* (J. E. Gray): Large Indian Kite**

Khumbu: Imja Valley: Yara! : 1 ♂ (29 April).

Measurements: 1 ♂: Wing 509, tail 305, bill 41.5.

Colours of bare parts: Iris dark brown, cere dull greenish white, bill black. legs and feet pale greenish yellow, claws black.

The Large Indian Kite did not appear to be uncommon in eastern Nepal between c. 2100 and 3500 m. Below and above this altitudinal range, it appeared scarce. The highest place where it was observed was Dudh Pokhari (c. 4900 m), where a single example flew up along the Dudh Kosi river on 14 May at about midday. It soared over the area, alighted on a boulder on the shore of the lake, stopped there for a few minutes, and then flew down along the valley. Besides, stray specimens were observed occasionally at c. 3800-4000 m during the spring.

****Haliastur indus* (Boddaert): Brahminy Kite**

A few examples of the Brahminy Kite were seen in the Pilua Khola valley, about 10 km east of Chainpur at about 1370 m in late June.

Accipiter nisus melaschistos Hume: Indian Sparrow-Hawk

Khumbu: Bhote Kosi Valley: Hunko: 1 ♀ (17 March); Lobujya Valley;
Phalong Karpo: 1 ♂ (23 April).

Measurements:	Wing	Tail	Bill
1 ♂:	209	163	19
1 ♀:	252	192+	23

Colours of bare parts: Iris golden yellow, cere lemon yellow, bill bluish slaty with black on tip (black more extensive in male), legs and feet chrome yellow, claws black.

The Sparrow-Hawk did not appear to be particularly common in eastern Nepal. Examples were sporadically seen at altitudes ranging between c. 3000 and 4570 m in spring.

My male specimen from Phalong Karpo is doubtfully placed under this subspecies. It is not in full adult plumage and is somewhat worn. It is a shade paler than the other examples of *melaschistos* I have examined, but not quite as pale as *nisosimilis*. Dr Charles Vaurie, who examined the specimen, writes (*in litt.*) 'that *nisosimilis* is not a very good race' as out of the hundreds that he has seen 'about 40 per cent... are not separable from nominate *nisus*'. He concludes that my specimen 'is either *A. nisus melaschistos* or *A. n. nisosimilis*'.

***Aquila chrysaetos** (Linnaeus): Golden Eagle

The Golden Eagle was sighted only on a few occasions in eastern Nepal between c. 1830 and 3050 m in January-February.

***Ictinaetus malayensis** (Temminck): Black Eagle

The Black Eagle was seen by me twice between Dolalghat and Risingo, central Nepal, at c. 850-1520 m late in January, and once in the Pilua Khola valley, about 12 km east of Chainpur, at c. 1400 m on 26 June.

***Ichthyophaga nana** (Blyth): Greyheaded Fishing Eagle

The Greyheaded Fishing Eagle was seen by me once at Dolalghat (c. 850 m) on the Sun Kosi river, central Nepal, on 27 January; and thrice in Khumbu, eastern Nepal, twice below the Base Camp on the Dudh Kosi river, at about 3500 m between 4 and 8 May, and once a single bird flying down along the Dudh Kosi river between Karnassa and Nah at about 4250 m on 10 May.

The species does not seem to have so far been reported from as high an altitude as 3500 m.

***Torgos calvus** (Scopoli): Black Vulture

In eastern Nepal, the Black Vulture was observed by me once between Thosa and Chyangma at about 2130 m in the Khimti Khola valley, Ramechhāp district, on 4 February, and a few times between Khote and Chainpur (c. 610-1600 m), Dhankuta district, between 13 and 25 June

***Gyps himalayensis** Hume: Himalayan Griffon

The Himalayan Griffon appeared rather scarce in Khumbu. I saw it only on a few occasions around Namche Bazar, Base Camp and Thyangboche between 3800 and 4000 m in mid-February.

[Gypaetus barbatus aureus (Hablizl): Himalayan Lämmergeier

Khumbu : Bhote Kosi Valley : Paré : 1—(2 April).

Measurements : 1— : Wing 827, tail 512, bill 87.

The Lämmergeier or the Bearded Vulture was occasionally met with by us from c. 1830 to 5480 m and above in eastern Nepal. In Khumbu it was regularly seen almost every day, but there appeared to be only a few individuals there. It used to soar up and down along the various rivers, frequently crossing high ridges to get into the adjacent valleys. It was seen soaring above the Khumbu glacier, Gokyo and Thonak, Ngojumba glacier, as well as passing down along the Dudh Kosi river below Namche Bazar.

On 4 February a nest of this bird was found in a small cave on the cliff-face overlooking Thosé-Chyangma path at about 2135 m. The incubating parent bird was chased away and the single egg which formed the clutch was collected by a member of the expedition. Later, on 18 April, an aerie of the Lämmergeier was found a little to the northwest of Pangboche in a cave high up on a sheer cliff-face at about 4700 metres on Taweche ridge. The cliff-face below the mouth of the aerie was marked with long white streaks of droppings. During mid-April and early May, the Lämmergeier was occasionally seen to enter into and leave the aerie.

***Falco tinnunculus** Linnaeus : Kestrel

The Kestrel was occasionally seen by us in and around the cultivated fields near Chainpur in June.

Order CICONIIFORMES

Family Ciconiidae

***Leptoptilos dubius** (Gmelin) : Adjutant

A pair was seen flying near Chainpur in the morning of 16 June.

Order ANSERIFORMES

Family Anatidae

***Anser indicus** (Latham) : Barheaded Goose

On 5 April at about 12.15 hours we noticed from the Base Camp a flock of the Barheaded Goose flying from south to north over the Dudh Kosi river. The passage appeared smooth till the flock reached the

confluence of the Imja Khola with the Dudh Kosi, where the birds seemed hesitant for a short while. Circling over the confluence for a few minutes the flock flew upwards above the Phorcha and Thyangboche buttresses, and changing course northwestward, disappeared into the mist along the Dudh Kosi valley which it apparently took.

Tadorna ferruginea (Pallas): Ruddy Sheld-duck or Brahminy Duck
Khumbu: Dudh Kosi Valley: Toujung Lake: 1 ♂ (15 May); Longbonga Lake: 1 (♂) (15 May).

Measurements: 2 ♂: Wing 378, 385; tail 135, 138; culmen 43.5, 46.

The Brahminy Duck was found in small numbers on the three lowermost lakes on the upper reaches of the Dudh Kosi, namely, Longbonga, Toujung and Dudh Pokhari (c. 4700-4900 m) between late February and mid-May.

The Toujung specimen had much enlarged testes. Obviously, the birds were getting ready to breed and preparing to leave for their breeding grounds, unless they bred locally.

Anas penelope Linnaeus: Wigeon

Khumbu: Dudh Kosi Valley: Longbonga Lake: 2 ♂ (11 May).

Measurements: 2 ♂: Wing 240+, 255++; tail 95, 102; bill 40, 42; culmen 33(2).

The Wigeon was observed in small numbers on the Longbonga Lake and Dudh Pokhari only in May. Furthermore, on 5 April at about 11 hours, a single male specimen of what appeared to be a Wigeon was seen from the Base Camp flying back and forth along the Dudh Kosi river between its confluence with the Imja Khola and a kilometre or so to the south. It looked as if the bird had lost its way and was trying to get its bearings. After two or three sorties north and south, it finally made off towards the south and was not seen to come back.

Both my specimens had enlarged gonads.

The primaries are worn in both the specimens, more so in one of them. In that specimen the tail is in moult—the two central pairs of rectrices are fresh, while the other tail-feathers are very worn.

The two Khumbu specimens differ somewhat in the details of coloration. Thus, one of them has the head, neck, chin and throat slightly paler than those of the other specimen. Also, it has very few black spots on the lores and the sides of the head, and it lacks the blackish vermiculations on the upper breast, which are conspicuous in the other specimen. This latter bird has the buff on the forehead and crown very much paler than in the other bird—almost of cream colour.

Aythya fuligula (Linnaeus): Tufted Duck

Khumbu: Dudh Kosi Valley: Longbonga Lake: 1 ♂ (11 May).

Measurements: 1 ♂: Wing 198+, tail 55, bill 48, culmen 41.

Colours of bare parts : Iris bright yellow, bill slaty with black on tip and lower mandible, legs and feet slaty olive, claws black.

The Tufted Duck was seen by us in very small numbers on the Longbonga Lake and Dudh Pokhari in May.

The two outermost pairs of primaries in my specimen are somewhat worn, and the rectrices are fresh, except the central pair which is only half-grown and has sheath on base.

Order GALLIFORMES

Family Phasianidae

**Lerwa lerwa* (Hodgson): Snow Partridge

The Snow Partridge was observed by me only twice in Khumbu, once on the lateral moraine of the Khumbu glacier at about 5000 m on 20 February, and again above the track near Koner (a kilometre or so to the northwest of Phorcha), Dudh Kosi valley, on 10 May. It was, however, heard more frequently in March and May than seen. The highest elevation at which it was encountered was about 5200 m on 31 March, when it was heard near the crest of the ridge separating the Langmoche and Thami valleys between Langmoche and Gnachu.

Tetraogallus tibetanus aquilonifer R. & A. Meinertzhagen: Sikkim Snowcock.

Khumbu : Bhote Kosi Valley : Marlung : 2 ♂ (10 March) ; Thami Valley : Gnachu : 1 ♂ (24 March) ; Thyangbo : 1 ♂, 1 ♀ (24 March).

Measurements :

	Wing	Tail	Bill
4 ♂ :	267, 268, 270, 271	161, 162, 163, 164	37.5, 38.5, 39 (2)
1 ♀ :	265	158	36

Colours of bare parts : Iris dark brown, edges of upper eyelid orange, edge of lower eyelid, postorbital skin, cere and nasal membrane reddish orange, bill dusky orange-yellow, legs and feet reddish orange, claws black.

The Snowcock was not uncommon in Khumbu in groups of two to six or so on moraines, sparsely scrubby or grass-covered rocky areas, etc. between c. 4700 and 5335 metres during February-May. Strangely enough, it appeared to be fairly common and quite at home on the snow-covered moraines of the Khumbu glacier at c. 5180-5335 metres in February !

The gonads of the Thami Valley (Gnachu and Thyangbo) specimens were moderately enlarged, the male from Gnachu having 16×10 (right) and 15×8 (left) testes, and that from Thyangbo having them 10×6 (right) and 14×7 (left) ; and the female from Thyangbo having a coarsely granular ovary, the largest ovum being about 3 mm in diameter.

The extent of dark grey on the base of the throat in the males is somewhat variable in my specimens. Thus, it is in two small irregular patches in the Gnachu male, while it is in the form of an almost complete band with a little gap in the three other males, much like the Sikkim birds described by Rand & Fleming (1957, p. 59). The female has the chin and anterior throat white, while the malar region, posterior throat and anterior breast are brownish black mottled with light buff and white.

****Francolinus francolinus* (Linnaeus): Black Partridge**

The Black Partridge was heard only once in eastern Nepal, below Kirantichhāp, at about 1000 m, in Ramechhāp district, on 31 January.

***Ithaginis cruentus cruentus* (Hardwicke): Nepal Blood Pheasant**

Khumbu : Dudh Kosi Valley : Base Camp : 1 ♂, 1 ♀ (7 April); Imja Valley : Yara! : 1 ♀ (3 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	207	157	27.5
2 ♀ :	190, 205	130, 159	24.5, 25

Colours of bare parts: *Male* : Iris brown; orbital skin, cere and nasal membrane orange-vermilion; bill black with coral red on base and gape; legs, feet and pads coral red; claws dark horny on top but pale orange on underside. *Female* : Similar to male but orbital skin dull orange, cere black anteriorly but orange posteriorly, nasal membrane black, bill black all over, legs and feet coral red with a dusky tinge specially on feet.

We found the Blood Pheasant to be fairly common in Khumbu between c. 3800 and 4100 m during February-May. It occurred in small parties in forests consisting of rhododendrons, birch and fir, and did not appear to be particularly shy.

***Tragopan satyra* (Linnaeus): Crimson Horned Pheasant**

Solu : Dudh Kosi Valley : Ghat : 1 ♂, 1 ♀ (29 April, 16 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	272	253	31
1 ♀ :	235	184	30.5

Colours of bare parts: *Female* : Iris brown, bill horny brown, legs and feet reddish brown, claws horny.

The Crimson Horned Pheasant was seen between c. 2750 and 3050 metres in the Dudh Kosi valley above Ghat and Phakding in April and May, and above Bung (c. 2740 m) in the Hongu Valley, early in June.

The specimens listed above were caught alive in Ghat area by some local people and brought to the Base Camp for the Expedition's menagerie. The female bird, after it was caught, remained with the catcher for some days when it was said to have laid three eggs. It was then

brought to our camp where it lived only for a few days and died on the morning of 29 April. The male bird lived in the menagerie for a week and died on 16 May morning.

The male specimen had well-developed testes, but the female had an exhausted ovary.

Lophophorus impejanus (Latham): Monal Pheasant

Khumbu : Bhote Kosi Valley : Hunko : 2 ♂, 1 ♀ (17, 19 March) ; Thami Valley : Thami : 1 ♂ (19 March).

Measurements :

	Wing	Tail	Bill
3 ♂ :	292, 294, 301	203+, 222+, —	52 (2), —
1 ♀ :	270	—	47

Colours of bare parts : Iris dark brown, orbital skin bright blue (paler in the female), bill dark horny, legs and feet olive horny, claws horny.

The Monal Pheasant was found to be common in small parties in Khumbu between c. 3800 and 4270 m in forests during February-May.

The tips of rectrices are somewhat worn in the Thami male (19 March), and very much so in the female from Hunko (17 March).

The Thami male has still retained some juvenile characters. It has rufous barrings on the outer two secondaries, partial barrings on the inner four secondaries, and dark brown and white mottling on the bases of rectrices, the two outermost pairs of which are extensively marked with black bars and spots.

Compared with the winter-taken female specimens from northern Sikkim, the only female from Khumbu has somewhat reduced white on the chin and throat, and has slightly paler, less rufous bars on the secondaries.

The gonads of the Khumbu specimens had already started swelling.

***Lophura leucomelana (Latham): Kalij Pheasant**

The Kalij Pheasant was seen late in the afternoon of the 7th February near Taksindhu at about 3050 m (c. 27°37'N, 86°38'E, Okhaldhunga district), that is, on the ridge separating the Solu Khola from the Dudh Kosi. Later, on 25 May, it was seen in a pair early in the afternoon feeding in a harvested field on a ledge about 50 m below Namche Bazar, that is at about 3750 m. I was informed by some local people that this pair of birds regularly came there late in the day. Next day (26 May), I saw the pair again there feeding at about 11 a.m.

Order CHARADRIIFORMES

Family Charadriidae

Subfamily Charadriinae

***Vanellus duvaucelii** (Lesson): Spurwinged Plover

A few individuals of the Spurwinged Plover were observed on the bank of the Arun river between Sati Ghat and Tumlingtar at c. 450 m altitude on 11 and 12 June.

Subfamily Scolopacinae

***Numenius arquata** (Linnaeus): Curlew

Dr William Edgar, Medical Officer of the Expedition, who has a good knowledge of the British birds, reported to me that he had heard the Curlew on the Khumbu glacier at about 5300 m early in May. He was not, however, lucky enough to view the bird.

***Tringa hypoleucos** Linnaeus: Common Sandpiper

A few specimens of the Common Sandpiper were sighted singly on the edges of both the Indrawati and Sun Kosi rivers near their confluence at Dolalghat (alt. c. 850 m ; 27°38'N, 85°43'E) on 27 January.

***Scolopax rusticola** Linnaeus: Woodcock

On 2 April, at dusk, two specimens of the Woodcock were seen separately, flying slowly and somewhat irregularly over the forest to the east of the Base Camp, uttering feeble squeaks at the same time. They were observed to proceed as far as the head of a small hill stream and could not be traced any further owing to bad visibility. The same performance was repeated at the same time on 3 and 4 April. I am not sure if they were 'roding'.

Subfamily Ibidorhynchinae

***Ibidorhyncha struthersii** Vigors: Ibisbill

A party of five Ibisbills was observed on 27 January at Dolalghat on the shingle banks at the confluence of the Indrawati and Sun Kosi rivers. The birds did not appear to be shy and permitted prolonged observation by most members of the Expedition from fairly close range.

Family Laridae

***Sterna aurantia** J. E. Gray: Indian River Tern

The Indian River Tern was seen only once by me at Sati Ghat on Arun river (alt. c. 460 m ; 27° 21'N, 87° 12'E) on 11 June, when a few birds were scanning the river at about midday.

***Sterna acuticauda** J. E. Gray: Blackbellied Tern

Small numbers of the Blackbellied Tern were observed on the Arun river from Sati Ghat to Tumlingtar (alt. c. 305-460 m) on 11 and 12 June.

Order COLUMBIFORMES

Family Columbidae

***Treron sphenura** (Vigors): Wedgetailed Green Pigeon

A party of four examples, and another of six, of the Wedgetailed Green Pigeon were noticed on *Ficus* trees near Khoté (alt. c. 915 m ; 27° 16'N, 87° 14'E), Sabhaya Valley, Dhankuta district, eastern Nepal, on 11 June.

Columba leuconota leuconota Vigors: Snow Pigeon

Khumbu: Bhote Kosi Valley: Thammu: 1 ♀ (7 March); Thami Valley: Thami: 1 ♂ (8 March).

Measurements:

	Wing	Tail	Bill
1 ♂:	254	137	25
1 ♀:	237	131	22

Colours of bare parts: Iris golden yellow, bill black, legs and feet cherry red, claws black.

The Snow Pigeon was first seen during this Expedition on 7 February in a large flock above Junbesi (c. 27° 34'N, 86° 33'E) in the Beni Valley, Solu, at about 3000 m. It was later observed at different places in Solu in large flocks between c. 2895 and 3050 m up to 10 February. In Khumbu it was seen from mid-February to April between c. 3655 and 4400 m in and about all the villages, but never in large flocks: it occurred there in small flocks of about a dozen birds at the most, and in late April, even in pairs.

Compared with the northern Sikkim examples taken in January, these Khumbu specimens have much duller head and wing-coverts, and browner mantles. I have not, however, been able to compare these specimens with examples from the western Himalaya.

***Streptopelia orientalis agricola* (Tickell): Eastern Turtle Dove**

Khumbu: Dudh Kosi Valley: Below Khumjung: 1 ♂ (9 April).

Measurements: 1 ♂: Wing 190, tail 139, bill 21.

Colours of bare parts: Iris orange-red; orbital skin, edges of eyelids, cere and base of bill purplish crimson; bill pale horny; legs and feet crimson; claws horny.

The Eastern Turtle Dove was rather scarce in Khumbu. None was seen there until April 9, presumably because none had returned from the winter quarters. Subsequently, it was seen in one or two pairs at a time only at a few localities, such as near Thyangboche (c. 3960 m) on 17 April and 4 May, below Phorcha (c. 3950 m) on 9 May, and Phakding on 28-30 May. Later and further southeastward in the Arun watershed about Chainpur, it appeared commoner. There many pairs were found between 13 and 25 June on the edges of forests.

Order PSITTACIFORMES

Family Psittacidae

****Psittacula himalayana* (Lesson): Himalayan Slatyheaded Parakeet**

The Himalayan Slatyheaded Parakeet was seen only once in a small flock at an altitude of about 1100 metres in a forest between Manga Deorali and Kirantichhāp, Ramechhāp district, on 31 January.

Order CUCULIFORMES

Family Cuculidae

****Cuculus sparveriioides* Vigors: Large Hawk-Cuckoo**

The Large Hawk-Cuckoo was heard only in the Arun watershed at about 1525 m altitude between Pokhara and Dingla, Bhojpur district, on 8-10 June.

****Cuculus micropterus* Gould: Indian Cuckoo**

The Indian Cuckoo was heard and seen several times between 13 and 25 June about Chainpur, Dhankuta district.

****Cuculus canorus* Linnaeus: Cuckoo**

The Cuckoo was first heard in Khumbu by me on 10 May near Phorcha. It was subsequently observed or heard between c. 3650 and 4260 m up to the last week of May when I left Khumbu. It was not particularly common there. Elsewhere in eastern Nepal, it appeared to be common between c. 1220 and 2745 m from the Hongu Valley east to the Tamur Valley in June.

***Cuculus saturatus** Blyth : Himalayan Cuckoo

This cuckoo seemed common in the Solu region, Dudh Kosi Valley (Puiyan, Phakding, etc.) eastward to the Tamur Valley, between c. 1525 and 3050 m from end May to end June.

***Eudynamys scolopacea** (Linnaeus): Koel

The Koel was observed and heard only about Dingla (c. 1525 m) in the Arun Valley, Khoté (c. 915 m) in the Sabhaya Valley, and in the Hinwan Valley at c. 1370 m, below Chainpur, between 9 and 25 June.

Order CAPRIMULGIFORMES

Family Caprimulgidae

Caprimulgus indicus hazarae Whistler & Kinnear: Himalayan Jungle Nightjar

Okhaldhunga district : Inukhu Valley : c. 9 km E of Pankhoma : 1—[in alcohol] (2 June).

Measurements : 1—: Wing 207, tail 140, bill from posterior edge of nostril 9.

This specimen was found lying dead on the edge of a forest path at about 10 in the morning. Rigor mortis had not set in when it was found, and it had no visible mark of injury on its body.

Some nightjars, probably the Jungle Nightjars, were heard at Chiya Kharka (c. 3050 m), Inukhu Valley, and at Bung (c. 2700 m), Hongu Valley, early in June.

Order CORACIIFORMES

Family Coraciidae

***Coracias benghalensis** (Linnaeus): Roller

The Roller was met with in very small numbers only around Tumlingtar (c. 305 m), Arun Valley, and near Khoté (c. 915 m), Sabhaya Valley, both in Dhankuta district, on 11 and 12 June.

Family Upupidae

Upupa epops saturata Lönnerberg : Tibetan Hoopoe

Khumbu : Pumori glacier (c. 5700 m ; 28°N, 86°50'E) : 1—[in alcohol] (7 May).

Measurements : 1—: Wing 153.5, tail 102, bill 65.

The only specimen of the Tibetan Hoopoe encountered by us was shot by Mr T. Stobart of the Expedition in an ablation valley of the Pumori glacier.

The Tibetan Hoopoe has earlier been reported from the adjacent areas of Tibet and Sikkim as high as *c.* 4572-6400 metres by Wollaston and Blanford (in Kinnear, 1922, p. 204). Diesselhorst (1968, p. 174) and Martens (1971a, p. 122) have reported it from Khumbu between 3800 and 5000 metres.

Order APODIFORMES

Family Apodidae

***Apus pacificus** (Latham): Whiterumped Swift

The Whiterumped Swift was observed on several occasions flying about in small flocks over the Dudh Kosi river near the Base Camp at *c.* 3600-3800 m in April-May. It was also seen in Chainpur area (*c.* 1525 m) in mid-June.

Apus affinis (J. E. Gray): House Swift

The House Swift was common in Chainpur in mid-June.

Order PICIFORMES

Family Capitonidae

***Megalaima virens** (Boddaert): Great Himalayan Barbet

The Great Himalayan Barbet was found practically all over eastern Nepal between *c.* 1500 and 1830 m in June and early July. It was, however, more often heard than seen.

***Megalaima franklinii** (Blyth): Goldthroated Barbet

This barbet did not appear to be common in eastern Nepal. It was observed on a few occasions between Pokhara and Dingla, Bhojpur district, on 8 June, and about Chainpur between 13 and 25 June.

Family Picidae

***Picoides auriceps** (Vigors): Brownfronted Pied Woodpecker

Many pairs of the Brownfronted Pied Woodpecker were observed in a pine forest a little below Manga Deorali (*c.* 1830 m; 27°40'N, 85°57'E), Ramechhāp district, on 31 January. Diesselhorst (1968, p. 186) has recorded it further eastward, at 86°4'E, in the same district.

Order PASSERIFORMES

Family Alaudidae

Calandrella acutirostris tibetana Brooks : Brooks's Short-toed Lark

Khumbu : Lobujya Valley : Phalong Karpo : 1 ♀ (6 May) ; Imja Valley : above Pangboche (c. 4700 m) : 1—[in alcohol] (16 May).

Measurements :

	Wing	Tail	Bill
1 ♀ :	86	54	13·5
1— :	90	59	14

Colours of bare parts : Iris dark brown, bill orange-horny with blackish on culmen and tip, legs horny brown, feet and claws horny.

This short-toed lark was found in small numbers in the scrub about Phalong Karpo and above Pangboche in May.

The Phalong Karpo specimen is in a somewhat worn plumage, but the other one is fairly fresh.

Family Hirundinidae

***Hirundo daurica** Linnaeus : Striated Swallow

The Striated Swallow was common in June in most of the larger villages of eastern Nepal situated between c. 1525 and 2440 m.

***Delichon nipalensis** Moore : House Martin

Small numbers of the House Martin were observed in Chainpur area in mid-June.

Family Motacillidae

Anthus roseatus Hodgson : Hodgson's Pipit

Khumbu : Lobujya Valley : Pheriche-Phalong Karpo (c. 4300-4570 m) : 3 ♂♂, 2 ♀, 1—[in alcohol] (22-26 April) ; Dudh Kosi Valley : Longbonga Lake : 1 ♀ (11 May).

Measurements :

	Wing	Tail	Bill
3 ♂ :	89, 90·5, 94	66, 69, 73	16, 16·5, —
3 ♀ :	81·5, 83·5, 84	59, 62 (2)	16 (2), —
1— :	89	65	16·5

Colours of bare parts : Iris dark brown, bill horny black but fleshy horny on lower mandible, legs and feet fleshy brown, claws horny.

In mid-February when I camped in the Pheriche-Phalong Karpo area, not a single example of the Hodgson's Pipit was seen there, but when I revisited the area between 22 and 29 April, it was quite com-

mon there. It occurred in small parties which were breaking up into pairs. It was usually feeding on the damp ground near the large numbers of streamlets that criss-cross the area, and when alarmed was hiding in the dwarf alpine vegetation. Its behaviour and the somewhat swollen condition of the gonads suggested that it was getting ready to breed. It was also found equally common in small parties or pairs in a western ablation valley of the Ngojumba glacier, especially on the shores of the Longbonga and Gokyo lakes (c. 4700-4900 m) between 11 and 15 May.

Motacilla alba alboides Hodgson : Hodgson's Pied Wagtail

Khumbu : Lobujya Valley : between Phalong Karpo and Thugla (c. 4600 m) : 1 ♂, 1 ♀ (24 April) ; Thami Valley : Thami : 1—(18 March).

Measurements :

	Wing	Tail	Bill
1 ♂ :	97	89+	18.5
1 ♀ :	90	90	18
1— :	92	90	—

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

Hodgson's Pied Wagtail was found from time to time during my march eastward from Kathmandu, especially about Banepa, Lamadihi, Dolalghat, Chyaubas and the Khimti Valley between 850 and 2150 m. In Khumbu, it appeared rather rare from mid-February to early April. From mid-April onwards, it was quite common in pairs, one chasing the other, with characteristic undulating flight, and uttering a rather musical note. In the Pheriche-Phalong Karpo area, it occurred generally on the larger streams up to a little below Thugla (c. 4700 m).

Family Campephagidae

***Pericrocotus flammeus** (Forster): Scarlet Minivet

A flock of the Scarlet Minivet (males) was seen between Lamadihi and Dolalghat (c. 850-1050 m), Chautara district, on 27 January.

Pericrocotus ethologus favillaceus Bangs & Phillips: Longtailed Minivet

Khumbu : Bhote Kosi Valley : Paré (c. 4000 m) : 1 ♂ [in alcohol] (1 April).

Measurements : 1 ♂ : Wing 93, tail 110, bill 16.

Colours of soft parts : Iris dark brown ; bill, legs, feet and claws black.

The Longtailed Minivet was first observed by us on 8 February below Taksindhu (c. 1980 m), Dudh Kosi Valley. It occurred in a mixed flock of males and females. The only other occasion when we found it was above Paré in Khumbu, and only two pairs were seen there.

Family Pycnonotidae

Pycnonotus leucogenys leucogenys (J. E. Gray): Whitecheeked Bulbul

Dhankuta district: Chainpur: 1 ♀, 1— [in alcohol] (19 June).

Measurements:

	Wing	Tail	Bill
1 ♀:	85	80	19
1—:	91	85	—

Colours of bare parts: Iris dark brown; bill, legs, feet and claws black.

The Whitecheeked Bulbul was found from time to time during our eastward march, especially in the Khimti Valley (c. 1800 m) in early February, and in the Arun, Sabhaya and Tamur Valleys (c. 600-1800 m) in June.

***Pycnonotus cafer** (Linnaeus): Redvented Bulbul

The Redvented Bulbul was seen by us between Banepa and Risingo (c. 1370-1520 m), Chautara district, during late January, and again in the Tamur Valley, Dhankuta district, up to c. 1500 m in June.

***Hypsipetes madagascariensis** (P. L. S. Müller): Black Bulbul

The Black Bulbul was found in flocks near Manga Deorali (c. 2400 m), Chautara district, on 30 January, and between Tamba Kosi and Khimti valleys, Ramechhāp district, at c. 1500-2000 m in early February.

Family Laniidae

Lanius tephronotus tephronotus (Vigors): Tibetan Shrike

Khumbu: Imja Valley: Dingboche: 1 ♂ (20 April). Solu: Dudh Kosi Valley: Phakding: 1 ♂, 1— [in alcohol] (27, 28 May).

Measurements:

	Wing	Tail	Bill
2 ♂:	98.5+, 103	120, —	21, 22.5
1—:	101	—	22

Colours of bare parts: Iris dark brown; bill black (slaty on base in a male); legs, feet and claws black.

We did not find the Tibetan Shrike to be common in eastern Nepal. It was encountered only once in Khumbu, on 20 April, when the specimen was taken. During late May, however, it appeared somewhat commoner in the Ghat-Phakding area of Solu.

The gonads of the Khumbu specimen (20 April) were but slightly developed, while they were fully developed in the male collected at Phakding on 27 May.

The Phakding specimens are in somewhat worn plumage.

Family Cinclidae

Cinclus pallasii tenuirostris Bonaparte : Brown Dipper

Khumbu: Confluence of Dudh Kosi river and Imja Khola (c. 3650 m ; 27°50'N, 86°45'E) : 1 ♂ (3 April).

Measurements : Wing 103, tail 62·5, bill 23·5.

Colours of bare parts : Iris brown, bill black, legs and feet pale bluish slaty, pads yellowish grey.

The Brown Dipper was first sighted by us on Khimti Khola at Those (c. 1830 m), Ramechhāp district on 4 February. Later, it was seen in Khumbu on several occasions, sometimes in pairs, on Imja Khola, specially about its confluences with the Dudh Kosi and Lobujya Khola, during February-May between c. 3650 and 4570 m.

The testes of the specimen were slightly enlarged.

Family Troglodytidae

Troglodytes troglodytes kinneari Biswas: Kinnear's Wren

Khumbu: Bhote Kosi Valley: Thammu: 1 ♂ [Holotype] (7 March).

Measurements : 1 ♂: Wing 54, tail 34, bill 9.

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws dark horny.

The Kinnear's Wren was observed in Khumbu during February-May between c. 2740 and 3660 m. It occurred singly among boulders forming boundaries of agricultural fields.

Vaurie (1959, p. 205), Ripley (1961, p. 538) and Ali & Ripley (1973, p. 137) have treated *T. t. kinneari* Biswas as a synonym of *T. t. nipalensis* Blyth.

Family Prunellidae

Prunella collaris nipalensis (Blyth): Eastern Alpine Accentor

Khumbu: Dudh Kosi Valley: Thonak: 1 ♂ (8 April), Base Camp: 1 ♀ (1 March); Bhote Kosi Valley: Thammu: 1— [in alcohol] (7 March); Ngojumba Valley: Chugima: 2 ♂ (14 May).

Measurements :

	Wing	Tail	Bill
3 ♂ :	97, 99, 103·5	65, 69, 71	16(2), 16·5
1 ♀ :	100	72	16
1— :	97	69	16

Colours of bare parts : Iris dark brown, bill black with yellow on base, legs and feet fleshy brown (March) or brownish orange (April-May), claws black, pads greyish yellow.

In eastern Nepal, the Alpine Accentor was found only in Khumbu. It did not appear to be particularly common there, occurring generally singly in scrub. During late February to early April, it appeared rather scarce and shy, but later it was bolder and was seen in larger numbers.

The April male specimen from Thonak had its gonads somewhat enlarged, but those from Chugima taken on 14 May had well-developed testes.

The white fringing of the flank feathers is rather variable in the Khumbu birds. Thus, the male from Thonak and one of the males from Chugima have mere traces of white on the flank feathers, but the female taken at the Base Camp area has somewhat more extensive white fringes on the flank feathers, and its central abdominal feathers are also fringed with white. The other male from Chugima has, however, no white on the flanks. The chestnut in the Khumbu birds is much deeper than in my only Sikkim bird (♂, Lachung, 3050 m, 22 January 1953). The Sikkim bird has, however, as much white on its underside as in the Khumbu female.

***Prunella strophia* *strophia* (Blyth):** Rufousbreasted Accentor

Khumbu: Lobujya Valley: Phalong Karpo: 1 ♂ (23 April); Thugla, 1 ♂ (24 April); between Phalong Karpo and Thugla (c. 4650 m): 1 ♂ (26 April); Imja Valley: Yaral: 1 ♂, 1— (30 April).

Measurements:

	Wing	Tail	Bill
4 ♂:	62, 66, 68, 70	53, 57, 58, 61·5	— (4)
1—:	66	56·5	—

Colours of bare parts: Iris reddish brown, bill black (once with brownish on base), legs and feet brownish fleshy, claws horny.

A confiding bird, the Rufousbreasted Accentor was not uncommon in Khumbu between c. 3650 and 4930 m during February-May.

The gonads of the Phalong Karpo and Thugla specimens were somewhat enlarged.

***Prunella rubeculoides* *rubeculoides* (Moore):** Robin Accentor

Khumbu: Thami Valley: Thami: 1 ♂ (17 March); Imja Valley: Dingboche: 2 ♀ (19 April).

Measurements:

	Wing	Tail	Bill
1 ♂:	73	62	—
2 ♀:	77, 78	65, 66	14, —

Colours of bare parts: Iris reddish brown, bill black, legs and feet light (March) to orange (April) brown, claws dark horny to black.

The Robin Accentor was found in Khumbu in small numbers between c. 3960 and 4930 m during February-May, frequenting scrub and feeding generally on the ground.

The male specimen (mid-March) had undeveloped testes, but the females (mid-April) had granular ova.

The rufous brown streaks on the dorsal side of the March specimen are more rufous than those of the other specimens, and the ferruginous on its breast is also deeper. The differences in coloration may possibly be due to the state of wear, the Thami male (17 March) being in very fresh plumage, while the other two (19 April) are slightly worn.

Family Muscicapidae

Subfamily Turdinae

Erithacus pectoralis confusus (Hartert): Eastern Rubythroat

Khumbu : Lobujya Valley : Phalong Karpo : 3 ♂ (22, 23, 29 April); Ngojumba Valley : Chugima : 1 ♀ (14 May).

Measurements :

	Wing	Tail	Bill
3 ♂ :	76, 77, 79	64, 64.5, —	17, — (2)
1 ♀ :	67	55	—

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black (legs in ♀ dark horny).

The Eastern Rubythroat was sighted and collected in the Lobujya and Ngojumba Valleys of Khumbu between c. 4570 and 4850 m in April-May. It occurred among boulders of moraines and in scrub on the ground, but appeared to be rather uncommon.

Two of the male specimens taken on 22 and 23 April had enlarged testes, but in the one collected on 29 April they had just commenced swelling, and the female (14 May) had an ovary that appeared to be spent.

Erithacus cyanurus rufilatus (Hodgson): Redflanked Bush Robin

Khumbu : Bhote Kosi Valley : Paré (c. 3900-4000 m) : 2 ♂ (25 March, 1 April); Imja Valley : Yaral : 3 ♂, 1 ♀ (30 April, 1 May); Pangboche : 1 (♀) [in alcohol] (29 April).

Measurements :

	Wing	Tail	Bill
4 ♂ :	82, 83 (3)	65, 66, 67, —	— (4)
2 ♀ :	78, 79	60, 62	15, —

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

The Redflanked Bush Robin occurred in Khumbu in scrub and bushes in small numbers during late March and early April, but about a month later, that is during late April and May, it was commoner there.

Three of my male specimens (1 April, 30 April) and a female (1 May) had fully developed gonads.

Erithacus chrysaeus chrysaeus (Hodgson): Golden Bush Robin

Khumbu : Imja Valley : Yaral : 1 ♂ (30 April), 1 ♀ (3 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	66.5	55	14.5
1 ♀ :	66	54	—

Colours of bare parts : Iris dark brown ; bill black with golden yellow on lower mandible and sides of upper mandible (♂) or golden yellow on base of lower mandible and dusky on its anterior half (♀) ; legs and feet brown but golden yellow showing through ; claws horny ; pads yellow.

The Golden Bush Robin appeared rather rare in Khumbu : we did not see any there till late in April, and then also rarely and under thick bushes.

The gonads of both my specimens were somewhat enlarged.

Erithacus indicus indicus (Vieillot) : Whitebrowed Bush Robin

Khumbu : Imja Valley : Yaral : 1 ♂ (1 May).

Measurements : 1 ♂ : Wing 80, tail 66, bill 16.

Colours of bare parts : Iris dark brown ; bill black ; legs, feet and claws very dark horny.

The Whitebrowed Bush Robin appeared very scarce in Khumbu. It was spotted there only once in scrub, when it was collected.

Copsychus saularis saularis (Linnaeus) : Indian Magpie-Robin

Dhankuta district : Chainpur : 1 ♂ (19 June).

Measurements : 1 ♂ : Wing 97, tail—, bill 20.

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

The Indian Magpie-Robin was common during January-July from the Nepal Valley east to the Singalila ridge on the Indian frontier up to about 1550 m altitude in and about towns and villages, in orchards, and in light forests.

Phoenicurus frontalis (Vigors) : Bluefronted Redstart

Khumbu : Thami Valley : Thami : 1 ♂ [in alcohol] (18 March) ; Bhote Kosi Valley : Hunko : 1 ♂ (25 March) ; Imja Valley : Dingboche : 1 ♂ (20 April), 1 ♀ (18 April), Yaral : 2 ♂ (1, 2 May).

Measurements :

	Wing	Tail	Bill
5 ♂ :	84, 85, 86 (2), 91	65, 68 (2), 73, —	15.5 (2), 16 (3)
1 ♀ :	79	61	15

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

The Bluefronted Redstart was quite a common bird during winter and spring from the Nepal Valley east to Okhaldhunga district up to about 4950 m altitude.

Two of the male specimens, taken on 25 March and 20 April, had their testes somewhat enlarged, but two other males (1 and 2 May) and the female (18 April) had fully developed gonads.

***Phoenicurus schisticeps* (G. R. Gray): Whitethroated Redstart**

Khumbu : Dudh Kosi Valley : Tesinga : 1 ♂ (6 March) ; Bhote Kosi Valley : Phurte : 1 ♂ (7 March).

Measurements : 2 ♂ : Wing 85, 87 ; tail 70, 72 ; bill 16, 16.5.

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

The Whitethroated Redstart was found in Khumbu during March only, occurring in small numbers in scrub and bushes between c. 3600 and 4000 m.

***Rhyacornis fuliginosus fuliginosus* (Vigors): Plumbeous Redstart**

Solu : Dudh Kosi Valley : Phakding : 1 ♂ (29 May).

Measurements : 1 ♂ : Wing —, tail —, bill 14.

Colours of bare parts : Iris dark brown ; bill black ; legs and feet brownish horny ; claws black ; pads white.

The Plumbeous Redstart was frequently found singly on boulders and shingle in the beds of streams of eastern Nepal during January-May between c. 900 and 4250 m altitude. In Khumbu, however, it did not appear to be particularly common.

The testes of the present specimen were fully enlarged.

Its plumage is very worn, specially the wing and tail.

****Grandala coelicolor* Hodgson : Hodgson's Grandala**

A flock of the Hodgson's Grandala was seen twice in Khumbu, off Namche Bazar near the bend of the Dudh Kosi river, on 11 and 14 February. There were perhaps 50 birds in the flock which circled above the valley and from time to time alighted somewhere in the gorge below.

****Enicurus scouleri* Vigors : Little Forktail**

The Little Forktail was seen by us only once in eastern Nepal, on Khimti Khola near Those, Ramechhāp district, on 4 February at c. 1830 m.

****Enicurus maculatus* Vigors : Spotted Forktail**

We found the Spotted Forktail only once on a little stream (a tributary of the Chaunri Khola) below Manga Deorali, Chautara district, at c. 1525 m on 30 January.

****Saxicola torquata* (Linnaeus) : Collared Bush Chat**

The Collared Bush Chat was sporadically seen singly in bushes about cultivated fields between 26 January and 5 February in Chautara and Ramechhāp districts.

**Saxicola ferrea* G. R. Gray : Dark Grey Bush Chat

The Dark Grey Bush Chat was sighted once in the Bhota Kosi valley, Ramechhāp district, on 1 February at about 1220 m—a single bird perched on the top of a shrub.

Chaimarrornis leucocephalus (Vigors): Whitecapped Redstart

Khumbu : Lobujya Valley : between Thugla and Phalong Karpo (c. 4650 m) : 1 ♂ (24 April), Pheriche : 1 ♂ (24 April); confluence of Lobujya and Imja Kholas (c. 4200 m ; 27°53'N, 86°49'E) ; 1 ♂ (25 April).

Measurements : 3 ♂ : Wing 100, 101, 102 ; tail 77, 81, — ; bill 17·5, 18 (2).

Colours of bare parts : Iris dark brown ; bill, legs, feet and claws black.

A few individuals of the Whitecapped Redstart were seen on Khimti Khola at about 1830 metres altitude near Those, Ramechhāp district, on 4 February. In Khumbu, it appeared common in pairs in the larger streams, such as Lobujya, Imja, Jambur and Chola Kholas, during April-May. A single example was also seen between Gokyo and Thonak Lake at c. 4950 m on 13 May.

The gonads of the specimens listed above were somewhat enlarged.

Myiophonus caeruleus temminckii (Vigors) : Himalayan Whistling Thrush

Khumbu : Thami Valley : Thami : 1 ♂ (25 March) ; Dudh Kosi Valley : Nah : 1 ♂ (10 May) ; Bhote Kosi Valley : Paré : 1 ♀ (29 March). Solu : Dudh Kosi Valley : Phakding : 1 ♀ (28 May).

Measurements :

	Wing	Tail	Bill
2 ♂ :	173, 180 +	131, 135 +	34, 34·5
2 ♀ :	172, 173	126 +, 128	33, 34·5

Colours of bare parts : Iris dark brown ; bill yellow with black on culmen and base of upper mandible ; legs, feet and claws black.

The Himalayan Whistling Thrush was heard in Solu between Tak-sindhu and Kharikhola, Dudh Kosi Valley, at c. 1830 m on 8 February. In Khumbu it was found singly from time to time during March-May on Thami, Dudh Kosi and Bhote Kosi rivers between c. 3800 and 4400 metres; and was once seen on a boulder in the bed of the Dudh Kosi a little to the north of Toujung Lake at c. 4800 m for a few minutes on 15 May. It appeared rather silent in Khumbu. Later, it was found breeding in Solu at c. 3000 m late in May, and in June and early July further eastward up to the Singalila Ridge fairly commonly and frequently giving out its characteristic musical call.

The March specimens had somewhat enlarged gonads ; the male taken on 10 May had fully developed testes, while the female of 28 May had already laid and had incubation patches present.

***Zoothera mollissima mollissima** (Blyth): Eastern Plainbacked Mountain Thrush

Khumbu: Dudh Kosi Valley: Base Camp: 1 ♂, 1 ♀ (5 April).

Measurements:

	Wing	Tail	Bill
1 ♂:	149	104	27
1 ♀:	136	114	27.5

Colours of bare parts: Iris dark brown, bill dark horny, legs and feet wax yellow, claws pale horny.

This mountain thrush appeared scarce in Khumbu. It was seen singly only on a few occasions during April-May between c. 3650 and 3960 m.

The gonads of these two specimens were somewhat enlarged.

Turdus boulboul (Latham): Greywinged Blackbird

Okhaldhunga District: Hongu Valley: above Bung (c. 2740 m): 1— [in alcohol] (4 June).

The Greywinged Blackbird was occasionally heard and/or seen in eastern Nepal in forests during February and June between c. 1060 and 2740 m.

The example under report was a fledgling that could fly only short distances. It was abandoned by its mother on our approach.

Turdus ruficollis atrogularis Jarocki: Blackthroated Thrush

Khumbu: Thami Valley: Thami: 1 ♂ (18 March).

Measurements: 1 ♂: Wing 133, tail 92, bill 33.

Colours of bare parts: Iris dark brown, bill black with yellow on base, legs and feet dark horny, claws black.

The Blackthroated Thrush was seen in Khumbu in flocks of about a dozen birds chiefly on juniper trees in Thami, Bhote Kosi and Dudh Kosi valleys from c. 3960 to 4400 m altitude in March and early April.

The testes of my specimen were only slightly enlarged.

Subfamily Timaliinae

***Garrulax albogularis** (Gould): Whitethroated Laughing Thrush

This Laughing Thrush was observed only once in eastern Nepal in a small flock in the forest below Serete, Likhu Valley, Okhaldhunga district, at about 2440 m on 5 February.

Garrulax lineatus setafer (Hodgson): Nepal Streaked Laughing Thrush

Khumbu: Dudh Kosi Valley: below Khumjung: 1 ♂, 1 ♀ (9 April). Solu: Dudh Kosi Valley: Phakding: 1 ♀ (29 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	78	93+	19
2 ♀ :	75, 75.5	86+, 92	18.5, 19

Colours of bare parts : Iris brown to reddish brown, bill pale horny to horny with dusky on base or on culmen, legs and feet horny brown, claws horny to brownish horny, pads fleshy.

Only a few pairs of the Streaked Laughing Thrush were seen in Solu and Khumbu during April-May at altitudes ranging from about 2800 to 3810 m. It did not appear to be a shy bird at all, and on 29 May at Phakding a pair was seen feeding hardly two metres away from a man who was noisily repairing his bamboo shutters.

The gonads of the April specimens were fairly well developed, and that of the May one was fully developed.

***Garrulax? subunicolor** (Blyth): Plaincoloured Laughing Thrush

On Sangasoti Danda (=Ridge), Chautara district, below Chyaubas at about 2130 m, a small flock of about six birds that appeared to be this laughing thrush was seen on 29 January late in the afternoon.

Garrulax affinis bethelae Rand & Fleming: Eastern Blackfaced Laughing Thrush

Khumbu : Dudh Kosi Valley : Base Camp : 1 ♂, 1 ♀ (3 March) ; Bhote Kosi Valley : Tarangan : 2 ♀ (16 March) ; Thami Valley : Thami : 1 ♀ (17 March) .
Solu : Dudh Kosi Valley : Phakding : 1 ♂ (29 May).

Measurements :

	Wing	Tail	Bill
2 ♂ :	108, 109	125+, 128	24, —
4 ♀ :	103, 104, 107, 113	125, 126, — (2)	— (4)

Colours of bare parts : Iris brown, bill black, legs and feet fleshy or light brown, claws horny.

The Blackfaced Laughing Thrush was commonly found in Solu and Khumbu in flocks of 4-8 birds or in pairs between c. 3000 and 4500 m during February-May. It was very confiding and noisy, and occurred in bushes.

The ovaries of the birds collected on 16 and 17 March had just commenced development, but the testes of the one taken on 29 May were fully developed.

The male taken on 29 May was worn. One of the females taken on 16 March had all its rectrices except the pair next to the central in moult. The moulting feathers were all in about equal stage of development. They were probably growing after their accidental loss.

These eastern Nepal birds are somewhat intermediate between those of the Nepal Valley and Sikkim, but are closer to the latter. Five of my specimens (2♂, 3♀), show, as reported by Rand & Fleming

(1957, p. 133) for their eastern Nepal birds, 'a tendency toward paler edgings of the breast feathers, though otherwise most like *bethelae*'. While none of my specimens is close to nominate *affinis*, one (♀) cannot be separated from *bethelae* of Sikkim.

***Garrulax erythrocephalus* (Vigors): Redheaded Laughing Thrush**

Okhaldhunga District: Pankhoma: 1— [in alcohol] (2 June).

In eastern Nepal, the Redheaded Laughing Thrush was seen first on the crest of the ridge separating Solu Khola from Dudh Kosi at Taksindhu (c. 3050 m) on 7 February. Later, in the early hours of the cloudy morning of 2 June it was found, just east of Pankhoma, that a Redheaded Laughing Thrush, obviously one of the parents, was tending two fledglings. On my approach, the parent bird and one of the fledglings flew down the slope, leaving the other fledgling for me. The parent bird was undoubtedly of this species, and from the point of view of distribution, should belong to group D of Rand & Fleming (1957, p. 134).

****Minla ignotincta* Hodgson: Redtailed Minla**

The Redtailed Minla was sighted only once on Sangasoti Danda, below Chyaubas, Chautara district, at about 1800 m in a flock of about a dozen birds on 29 January.

***Yuhina occipitalis occipitalis* Hodgson: Rufousvented Yuhina**

Khumbu: Bhote Kosi Valley: Paré (c. 4000 m): 1 ♂, 1 ♀ (1 April).

Measurements:

	Wing	Tail	Bill
1 ♂:	65	51	15
1 ♀:	63	50	—

Colours of bare parts: Iris dark brown, bill reddish brown, legs and feet dull brownish orange, claws horny.

Only a pair of the Rufousvented Yuhina was encountered by us, that is, the pair collected from a mixed feeding party above Paré.

The gonads of both the specimens were enlarged.

This bird was inadvertently reported under *Yuhina bakeri* by me earlier (Biswas 1962, p. 222). I am thankful to Mr Michel Deshayes for pointing out this error to me.

***Alcippe vinipectus chumbiensis* (Kinnear): Eastern Whitebrowed Tit-Babbler**

Khumbu: Imja Valley: Yaral: 1 ♀ (3 May).

Measurements: 1 ♀: Wing 55, tail 48, bill 11.

Colours of bare parts: Iris creamy white; upper mandible dark horny, lower mandible pinkish fleshy with horny tip; legs, feet and claws horny; pads white.

The Eastern Whitebrowed Tit-Babbler was common at certain localities in Khumbu between *c.* 3800 and 4000m during February-May, such as the Base Camp in the Dudh Kosi Valley, and Thyangboche and Yaral in the Imja Valley. It was confiding in nature, occurring in loose parties of 4-6 birds in scrub, and occasionally on the ground, specially at the edges of melting snow.

The gonad of the specimen had finely granular ova.

***Heterophasia capistrata** (Vigors): Blackheaded Sibia

The Blackheaded Sibia was frequently observed and heard near Chyaubas on Sangasoti Danda at *c.* 2150 m in Chautara district on 29 January, in the Likhu Valley, Ramechhāp district, at *c.* 1740 m on 5 February, and later in the western slope of the Singalila Ridge, Dhankuta district, on 1 and 2 July.

Subfamily Sylviinae

Phylloscopus affinis (Tickell): Tickell's Leaf Warbler

Khumbu: Imja Valley: Dingboche: 4 ♂ (18, 19, 21 April), Pangboche: 1 ♀ (29 April).

Measurements:

	Wing	Tail	Bill
4 ♂:	56, 58, 61, 62	42, 46, 47, 48	11.5, 12, — (2)
1 ♀:	62	47	12

Colours of bare parts: Iris dark brown, upper mandible dark horny, lower mandible yellow, legs horny, feet and claws dark horny.

The Tickell's Leaf Warbler was first observed in Khumbu near Paré during 26-30 March in very small numbers. Later, during mid-April-May it was not so uncommon in the Base Camp area and in the Imja Valley between *c.* 4300 and 4600 m. It usually occurred singly in scrub.

One of my male specimens (19 April) had but slightly enlarged gonads, but all the other specimens, males and females, had them fairly well developed.

Phylloscopus pulcher pulcher Blyth: Eastern Orangebarred Leaf Warbler

Khumbu: Bhote Kosi Valley: Paré (*c.* 4000 m): 2 ♂ (1 April); Imja Valley: Yaral: 1 ♀ (2 May). Dhankuta district: Chainpur: 1—[in alcohol] (19 June).

Measurements:

	Wing	Tail	Bill
2 ♂:	61, 62	42, 44	12, 12.5
1 ♀:	55	39	12
1—:	—	40	12

Colours of bare parts: Iris dark brown; upper mandible dark horny or black, lower mandible horny or brown with yellow on base and black anterior half; legs, feet and claws brown or horny; pads white, pale yellow or chrome yellow.

This leaf warbler was not uncommon in Khumbu during April-May, and in Chainpur area in mid-June. It occurred in pairs in bushes and trees.

While the testes of one of the males taken on 1 April was somewhat enlarged, those of another male collected on the same day were fully developed. The female (2 May) appeared to have already laid.

Phylloscopus proregulus chloronotus (G. R. Gray): Nepal Leaf Warbler

Khumbu : Dudh Kosi Valley : below Khumjung : 1— (9 April) ; Imja Valley : Yaral : 1 ♂ (3 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	54	38	—
1—:	51	36	11

Colours of bare parts : Iris dark brown ; upper mandible black, lower mandible yellow on basal half but horny anteriorly ; legs, feet and claws horny ; pads pale yellow.

The Nepal Leaf Warbler was seen only rarely in Khumbu. It occurred in pairs on trees during April-May.

The male specimen had fully developed testes.

Phylloscopus trochiloides trochiloides (Sundevall): Dull Green Leaf Warbler

Khumbu : Imja Valley : Yaral : 2 ♂ (2, 3 May).

Measurements : 2 ♂ : Wing 62·5, 63 ; tail 52, 52·5 ; bill 12, —.

Colours of bare parts : Iris dark brown ; upper mandible black, lower mandible yellowish fleshy with horny tip ; legs, feet and claws horny ; pads pale yellow.

This leaf warbler did not appear to be common in Khumbu. During May it was found in pairs on trees.

The gonads of both the specimens were fully developed.

Phylloscopus reguloides reguloides (Blyth): Blyth's Leaf Warbler

Solu : Dudh Kosi Valley : Phakding : 1 ♂ (29 May).

Measurements : 1 ♂ : Wing 59, tail 45, bill —.

Colours of bare parts : Iris dark brown, bill horny with yellow on edges and gape, legs and feet greenish grey, claws pale horny.

This leaf warbler was noted only once in eastern Nepal, when the specimen was collected. It occurred in a mixed feeding party on a tree.

The testes of the bird were fully enlarged.

Subfamily Muscicapinae

Ficedula strophinata strophinata (Hodgson): Orangegorgetted Fly-catcher

Khumbu : Dudh Kosi Valley : Base Camp : 1 ♂ (11 April).

Measurements : 1 ♂ : Wing 76·5, tail 60, bill 13.

Colours of bare parts : Iris dark brown, bill black, legs and feet horny, claws dark horny.

The Orangegorgetted Flycatcher was seen during the first half of April in the vicinity of the Base Camp. It was found singly on scrub, and in all only a few birds were sighted.

The testes of the specimen were fairly well developed.

***Niltava sundara** Hodgson : Rufousbellied Niltava

This niltava was found only once in the Likhu Valley, Ramechhāp district, on 5 February at about 1830 m.

Culicicapa ceylonensis pallidior Ticehurst : Himalayan Greyheaded Flycatcher

Okhaldhunga district : Hongu Valley : Bung : 1— [in alcohol] (4 June).

Measurements : 1— Wing 57, tail 48·5, bill 12.

Colours of bare parts : Iris dark brown ; upper mandible dark horny, lower mandible fleshy with horny tip ; legs, feet and claws fleshy brown.

Only a few individuals of the Greyheaded Flycatcher were seen in eastern Nepal. In the forest above Bung a single example was found in a mixed feeding party in the morning, and it was collected. Later in the day in the same area, two birds were seen carrying food presumably into nests placed high up (about 5 m, and not visible, from the ground) on tree-trunks thickly covered with epiphytes.

***Rhipidura hypoxantha** Blyth : Yellowbellied Fantail Flycatcher

This flycatcher was first seen in mixed feeding parties on trees near Those, Khimti Valley, Ramechhāp district, in early February. During March-April it was quite common in Khumbu between c. 3610 and 3960 m in the Dudh Kosi Valley, especially so in the Base Camp area late in the mornings when sunlight flooded the area.

Family Paridae

Parus ater aemodius Hodgson : Himalayan Coal Tit

Khumbu : Dudh Kosi Valley : Base Camp : 1 ♀ (3 March) ; Thami Valley : Thami : 1— [in alcohol] (18 March) ; Bhote Kosi Valley : Paré : 1— (2 April).

Measurements :

	Wing	Tail	Bill
1 ♀ :	59	42	10·5
2— :	56, 60	41, 44	11, —

Colours of bare parts : Iris dark brown ; bill black ; legs, feet and claws dark slate grey.

The Himalayan Coal Tit was quite common in the Base Camp area from February to May. It was also found in the Bhote Kosi and Thami Valleys at about 3800-4400 m during March and April.

The ovary of the female specimen (3 March) was not enlarged.

***Parus major** Linnaeus: Grey Tit

We saw the Grey Tit only once, on the bank of the Charnawati Khola, Ramechhāp district, on 31 January at about 1000 m altitude.

***Parus monticola** Vigors: Greenbacked Tit

This tit was observed only once in Khumbu, below Thyangboche at about 3960 m in the Imja Valley on 25 February.

Parus rufonuchalis beavani (Jerdon): Sikkim Black Tit

Khumbu: Bhote Kosi Valley: Paré: 1— [in alcohol] (27 March); Imja Valley: Yaral: 1 ♂, 1 ♀ (30 April, 1 May).

Measurements:

	Wing	Tail	Bill
1 ♂:	70	49	11
1 ♀:	67	48	11
1—:	65	47	10.5

Colours of bare parts: Iris dark brown, bill black, legs and feet bluish slaty, claws black with bluish slaty on base.

In Khumbu the Sikkim Black Tit was found in the Dudh Kosi, Bhote Kosi and Imja Valleys between c. 3655 and 4200 m during March-May.

The Yaral examples (30 April, 1 May) had fully developed gonads.

These Khumbu specimens are similar to Sikkim birds both in coloration and in size.

Martens (1971b) has shown that the blackbellied *P. rufonuchalis* and the rufousbellied *P. rubidiventris* are sympatric in west-central Nepal during the summer when they do not occur in mixed pairs, and that they have different call notes. They should, therefore, be treated as two distinct species (*contra* Vaurie 1950, pp. 41-44; 1957, pp. 18-19).

Parus dichrous dichrous Hodgson: Brown Crested Tit

Khumbu: Bhote Kosi Valley: Thammu: 1 ♂ (2 April).

Measurements: 1 ♂: Wing 74, tail 51, bill —.

Colours of bare parts: Iris reddish orange, bill black, legs and feet bluish slaty, claws horny.

This tit was found in small numbers between c. 3650 and 4150 m in Khumbu during February-May. It occurred in pairs in mixed feeding parties.

The testes of the specimen were only slightly enlarged.

This specimen formed the basis of Biswas's (1955) description of *Parus dichrous izzardii*. However, Snow (in Vaurie 1957, pp. 39-40) has shown that *izzardii* is a synonym of the nominate *dichrous*.

***Aegithalos concinnus** (Gould): Redheaded Tit

Several examples of the Redheaded Tit were spotted once in a mixed feeding party near Serete (c. 2530 m), Likhu Valley, Ramechhāp district, on 5 February.

***Aegithalos iouschistos** (Hodgson): Rufousfronted Tit

A small flock of about six examples of the Rufousfronted Tit was sighted only once for a few minutes on the scrub below Lamjura Bhanjang at about 2745 m in the Likhu Valley, Ramechhāp district, on 6 February.

Family Certhiidae

Certhia familiaris mandellii Brooks: Mandelli's Tree Creeper

Khumbu: Dudh Kosi Valley: Base Camp: 1 ♀, 1—(3 March, 11 April);
Bhote Kosi Valley: Paré: 1—[in alcohol] (1 April).

Measurements:

	Wing	Tail	Bill
1 ♀:	63	48	15
2—:	61, 63	— (2)	14.5, 15

Colours of bare parts: Iris dark brown; upper mandible very dark horny, lower mandible pinkish white (once with dusky tip); legs, feet and claws horny to dark horny; pads white.

This tree creeper was observed only on a few occasions in Khumbu—once below Thyangboche, Imja Valley, on 25 February, three or four times in the Base Camp area between March and May, and once above Paré on 1 April, all between the altitudes of c. 3800 and 4000 m.

The ovary of the female specimen (11 April) was enlarged.

Family Nectariniidae

***Aethopyga gouldiae** (Vigors): Mrs Gould's Sunbird

Mrs Gould's Sunbird appeared uncommon in eastern Nepal, where it was seen in Khumbu four times in the Bhote Kosi Valley at about 3655 m during February-May, once in Solu in the Dudh Kosi Valley at c. 3050 m in June, and twice in the Hongu Valley at about 3350 and 3655 m in June.

***Aethopyga ignicauda** (Hodgson): Firetailed Sunbird

The Firetailed Sunbird was occasionally seen in Khumbu at c. 3050-3655 m between February and May in Bhote Kosi and Dudh Kosi Valleys.

Family Emberizidae

***Melophus lathami** (J. E. Gray): Crested Bunting

The Crested Bunting was seen only once in eastern Nepal, in the Bhota Kosi Valley, Ramechhāp district, at c. 1370 m on 1 February.

Family Fringillidae

Leucosticte nemoricola nemoricola (Hodgson): Hodgson's Mountain Finch

Khumbu : Bhote Kosi Valley : Marlung : 1 ♀ (10 March) ; Thami Valley : Gnachu : 1 ♂, 3 ♀ (23 March) ; Lobujya Valley : Phalong Karpo, between Phalong Karpo and Thugla : 2 ♂ (23, 24 April) ; Imja Valley : Yaral ; 1 ♀ (1 May).

Measurements :

	Wing	Tail	Bill
3 ♂ :	97, 98, 100	66, 68, 69	13, 14 (2)
5 ♀ :	93, 95 (2), 97, 97·5	64, 66 (3), 67	13·5, 14 (3), 14·5

Colours of bare parts : Iris brown, bill brown with yellow on base and gape, legs and feet horny, claws dark horny, pads yellow.

This mountain finch was first seen near Lamjura Bhanjang at about 3650 m in Likhu Valley, Okhaldhunga district, on 6 February in a flock of about 20 birds. Later, it was occasionally seen in Khumbu in flocks of various sizes, e.g. about 10 at Marlung, 50 or more at Gnachu, 12-20 in Phalong Karpo-Thugla area, 10-12 at Yaral.

The gonads of the March birds were rudimentary, but those of April and May were somewhat enlarged.

The Gnachu female specimens (23 March) are very worn on the head. Thus, one of them is so worn that the streaks on the head are obliterated, presenting a uniform brown coloration from forehead to crown, with traces of new feathers on the lores ; the second specimen is similar to the last one, but its lores consist of all new feathers ; while in the third specimen moult has further advanced, so that it has all new feathers on the lores and forehead. The Yaral female (1 May) is slightly worn, but the rest of the specimens are in fresh plumage.

The male from Phalong Karpo has abnormal claws on its hind toes : they are much longer than the normal ones.

Leucosticte brandti audreyana Stresemann : Sikkim Mountain Finch

Khumbu : Lobujya Valley : Thugla, Phalong Karpo : 1 ♀, 1— [in alcohol] (24 February, 26 April).

Measurements :

	Wing	Tail	Bill
1 ♀ :	107+	73	13·5
1— :	110	72	13

Colours of bare parts : Iris dark brown ; bill dark horny with yellow on base ; legs, feet and claws black.

The Sikkim Mountain Finch was found only in the swampy area between Pheriche and Thugla (c. 4300-4700 m) during February and May, occurring in flocks of about 20-50 birds.

The ovary of the female specimen (26 April) had just commenced swelling.

Carpodacus rhodochrous (Vigors): Pinkbrowed Rosefinch

Khumbu : Imja Valley : Yaral : 1 ♂ (4 May).

Measurements : 1 ♂ : Wing 72, tail 58, bill 11·5.

Colours of bare parts : Iris reddish brown, bill pale horny with paler lower mandible, legs and feet brownish fleshy, claws horny.

The Pinkbrowed Rosefinch was found in Khumbu early in May in the Imja Valley at about 3900 m. It occurred in small parties of about four birds.

The testes of the specimen were not enlarged.

Carpodacus pulcherrimus pulcherrimus (Moore): Beautiful Rosefinch

Khumbu : Bhote Kosi Valley : Thangmoche (c. 4100 m ; 27°50'N, 86°39'E) : 1 ♂, 1 ♀ (8 March) ; Thami Valley : Thami : 2 ♂, 2 ♀ (18 March) ; Dudh Kosi Valley : below Khumjung : 1 ♂ (9 April) ; Imja Valley : Pangboche : 2 ♀ (18 April), Dingboche : 3 ♂, 1—[in alcohol] (18-21 April) Yaral : 2 ♂ [1 in alcohol] (1 May).

Measurements :

	Wing	Tail	Bill
♂♂ :	76(3), 77(2), 78(3), 79	60, 61, 62(3), 62·5, 63·5, 64	12(3), 12·5(4), 13(2)
5 ♀ :	72·5, 74·5, 75(2), 77	60, 61, 62, 63, 64	12(3), 12·5(2)
1—:	75	62	12

Colours of bare parts: Iris brown to dark brown ; bill, legs and feet horny, sometimes lower mandible or legs paler ; claws black.

In Khumbu the Beautiful Rosefinch was a common bird between c. 3800 and 4600 m during March-May. It occurred in juniper bushes, sometimes several pairs sharing the same bush.

Four male and two female birds (18, 19 April, 1 May) had slightly swollen gonads.

Rand & Fleming (1957, p. 206) cast doubt on the validity of *waltoni* Sharpe from south-eastern Tibet on the basis of the wing measurements of their Nepal birds. The chief difference between *pulcherrimus* and *waltoni* is not in size, but, as Kinneer (1944, p. 352) has already stated, in their coloration. From that point of view, *waltoni* should be reckoned as a valid subspecies (see also Vaurie, 1959, p. 633).

One of the male specimens (Dingboche, 18 April) is in female plumage. It had minute testes, while the others taken on the same day had them slightly enlarged. In size, however, it is no smaller than the other males.

Carpodacus thura thura Bonaparte & Schlegel: Sikkim Whitebrowed Rosefinch

Khumbu : Imja Valley : Yaral : 1 ♂, 1 ♀ (3, 4 May).

Measurements :

	Wing	Tail	Bill
1 ♂ :	83	73	14
1 ♀ :	81.5	72	13

Colours of bare parts: Iris dark brown, bill horny, legs and feet brownish horny, claws black.

A few small loose parties of the Sikkim Whitebrowed Rosefinch were observed in the Yaral area of the Imja Valley early in May.

The gonads of both the specimens were slightly enlarged.

Both the specimens have slightly worn rectrices.

Carpodacus puniceus puniceus (Blyth): Nepal Redbreasted Rosefinch

Khumbu : Ngojumba Valley : Chugima : 1 ♀ (14 May).

Measurements : 1 ♀ : Wing 108, tail 77, bill from skull 18, from anterior edge of nostril 12.5.

Colours of bare parts : Iris dark brown ; bill horny but lower mandible paler ; legs, feet and claws black.

Three pairs of this rosefinch forming a feeding party were found in the Chugima area on 14 May.

The ovary of my specimen was somewhat enlarged.

The plumage is worn to some extent, and there is no yellow on the breast.

Pyrrhula erythrocephala Vigors : Redheaded Bullfinch

Khumbu : Bhote Kosi Valley : Hunko : 1 ♂ (17 March), Paré : 1 ♂, 1 ♀ (1 April) ; Dudh Kosi Valley : Base Camp : 1 ♂, 1 ♀ (5 April) ; Imja Valley : Yaral : 1 ♂, 1 ♀ (1 May).

Measurements :

	Wing	Tail	Bill
4 ♂ :	79.5, 80(2), 81	64(2), 67, 68	9.5, 10 (2), —
3 ♀ :	78.5, 79, —	63, 64, —	9.5, 10 (2)

Colours of bare parts : Iris dark brown; bill black; legs pale horny; feet horny, claws dark horny.

In Khumbu the Redheaded Bullfinch was not uncommon between c. 3800 and 4100 m during March-May. It occurred in small parties of two or three pairs, generally in clumps of ringal bamboo, and sometimes on rhododendrons also.

The gonads of the Hunko specimen (17 March) were not enlarged, unlike in all the others (1 April-1 May) in which they were somewhat enlarged.

Mycerobas carnipes carnipes (Hodgson): Whitewinged Grosbeak

Khumbu : Dudh Kosi Valley : Tesinga : 1 ♂, 1 ♀ (6 March); Base Camp : 1 ♀ (8 April) ; Imja Valley : Pangboche : 1 ♂ (18 April).

Measurements :

	Wing	Tail	Bill	Width of lower mandible at gape
2 ♂ :	116, 118	94, 98	23.5, 24	15.3, 16.5
2 ♀ :	108, 121	89, 97	24, —	17.3, —

Colours of bare parts : Iris brown ; bill horny, paler on base and gape ; legs, feet and claws horny.

This grosbeak appeared to be common only in certain areas of Khumbu, specially where there are juniper trees. It is a noisy bird occurring in small parties of four to six individuals.

The gonads of my two April birds were somewhat enlarged.

The male specimen from Pangboche (18 April), with somewhat enlarged testes, is in female plumage except for a few black feathers on the chin, throat and upper breast. It is finishing a complete moult : the right lore is still in moult, the wing and body feathers are very fresh, but the rectrices are slightly worn, indicating that they moulted first.

Like the Sikkim birds (Meinertzhagen 1927, pp. 376-77 ; Rand & Fleming 1957, p. 208), my Nepal females also vary a great deal in wing size.

Family Ploceidae

***Passer domesticus** (Linnaeus): House Sparrow (altitude up to c. 1520 m).

***Passer montanus** (Linnaeus): Tree Sparrow (altitude c. 610-2140 m).

Family Sturnidae

***Acridotheres tristis** (Linnaeus). Common Myna (altitude up to c. 1830 m).

The above three birds were very common from Kathmandu to extreme eastern Nepal in and about human settlements in the altitudinal zones given against each.

* **Acridotheres fuscus** (Wagler): Jungle Myna

The Jungle Myna was observed once, outside the village Lamadihi (c. 1050 m), Chautara district, on 26 January.

Family Dicruridae

***Dicrurus adsimilis** (Bechstein): Black Drongo

The Black Drongo was found from Kathmandu to far eastern Nepal up to about 1830 m.

Dicurus leucophaeus longicaudatus A. Hay : Indian Grey Drongo

Dhankuta district : Chainpur : 1 ♀ (19 June).

Measurements : 1 ♀ : Wing 127 ; tail, length 131+, depth of fork 39+ ; bill 28.

Colours of bare parts : Iris brick red ; bill, legs, feet and claws black.

The Grey Drongo was a common bird of eastern Nepal between c. 915 and 1830 m.

The plumage of the specimen is fairly worn.

Family Corvidae

***Garrulus glandarius** (Linnaeus) : Jay

A small party of the Jay, consisting of about six birds, was seen in a pine forest below Manga Deorali, Ramechhāp district, at about 1830 m on 31 January.

***Cissa erythrorhyncha** (Boddaert) : Redbilled Blue Magpie

Two parties of the Redbilled Blue Magpie, each of four to six birds, were seen in the forest below Milke Bhanjang, Dhankuta district, in the Tamur watershed, at about 1525 m on 28 June.

***Dendrocitta formosae** Swinhoe : Himalayan Tree Pie

The Himalayan Tree Pie was observed once in the Irkhua Valley, Bhojpur district, at about 1220 m on 7 June ; and later (13-28 June), in Dhankuta district, several times in Chainpur area (c. 1525 m), and in the forests on both banks of the Tamur river (c. 1525 m) between Sango and Taplejung.

***Nucifraga caryocatactes** (Linnaeus) : Nutcracker

The Nutcracker was heard in the forest between Khari and Puyian, Dudh Kosi Valley, Solu, at about 2430 m on 9 February.

Pyrrhocorax pyrrhocorax himalayanus (Gould) : Himalayan Redbilled Chough

Khumbu : Imja Valley : Dingboche : 1 ♂ (20 April).

Measurements : 1 ♂ : Wing 290+, tail 150+ +, bill, from base 62, from nostril 55, tarsus 54.

Colours of bare parts : Iris dark brown ; bill, legs and feet blood red, claws black.

The Redbilled Chough appeared to be common in Khumbu only at a few places, such as Namche Bazar (in February), Dingboche (in April) and below Phorcha (in May), where it was feeding in the fields in flocks of 10-20 birds. A pair was also seen at Thyangbo on 23-24 March.

The testes of the specimen collected were somewhat enlarged.

The specimen has fairly worn rectrices.

***Pyrhocorax graculus digitatus* Hemprich & Ehrenberg: Himalayan Yellowbilled Chough**

Khumbu: Bhote Kosi Valley: opposite Marlung across river: 1 ♀ (14 March),
Paré: 2 ♂ (29 March).

Measurements:

	Wing	Tail	Bill from		Tarsus
			base	nostril	
2 ♂:	260, 276	—(2)	35, 37.5	20, 22	42 (2)
1 ♀:	257+	155+	34	21	40

Colours of bare parts: Iris dark brown, bill yellow, legs and feet dusky coral red, claws dark horny.

The Yellowbilled Chough was seen in pairs, loose parties or large flocks in various parts of Khumbu. Thus, a pair was sighted on 22 February on the edge of the Khumbu glacier near its head (c. 5330 m); large flocks in Bhote Kosi and Thami Valleys in March; and pairs or loose parties in May at Gokyo, Dudh Kosi Valley, where it was very common.

During my stay at Marlung (10-16 March), it was observed that every day at about midday a large flock of this chough flew from north southward high up along the opposite bank of the Bhote Kosi. The same flock was found on 28, 30 March and 1 April during visits to Hunko area to split up into three smaller flocks high above Hunko, one heading westward along the Thami Valley, another across the Bhote Kosi towards the north of Samde, and the third continuing its flight south-southwestward over Paré.

The testes of my male specimens were somewhat enlarged.

The rectrices of the Paré birds (29 March) were fairly worn, and the remiges and rectrices of the other specimen (14 March) slightly worn.

Vaurie's (1954, p. 7) measurements of eastern Himalayan birds are much larger than mine from Khumbu. Other specimens present at the Zoological Survey of India (only from Kashmir—Ladakh, Chitral, etc.) are larger birds, and their measurements fit in with those given by Vaurie. Dr Charles Vaurie, who examined my Khumbu material, informed me (*in litt.*) that only the larger male from Paré 'is fully adult ... the wing and bill [of this specimen] are ... a little shorter than in the specimens I had seen from eastern Himalayas'.

****Corvus splendens* Vieillot: House Crow**

The House Crow was found from Kathmandu east to the eastern border of Nepal wherever there were human habitations up to an altitude of about 1525 m.

***Corvus macrorhynchos intermedius* Adams: Himalayan Jungle Crow**

Khumbu: Bhote Kosi Valley: Namche Bazar: 1 ♂ (9 April); Imja Valley: Dingboche: 2 ♂, 1 ♀ (19, 20 April); Lobujya Valley: Phalong Karpo: 1 ♂ (28 April).

Measurements :

	Wing	Tail	Bill from skull	post. edge of nostril	Bill height at nostril
4 ♂ :	337, 343, 347,—	222+, 225(2), 230	60(3), 62	40.5, 41(2), 42	22(2), 23(2)
1 ♀ :	338	227	57	38	20.5

Colours of bare parts : Iris blackish brown ; bill, legs, feet and claws black.

The Himalayan Jungle Crow was found from Chautara district east to extreme eastern Nepal above c. 610 m during January-July. In Khumbu, it was found in almost all the valleys and occurred singly or in small parties.

All my specimens had enlarged gonads.

Dr Charles Vaurie, who has examined these specimens, informs me (*in litt.*) that they 'are much more similar to *intermedius* than they are to *tibetosinensis*, even though a couple (especially 28119) [= ♂, Namche Bazar] have the bill slightly larger than normal in *intermedius*. One would expect this sort of thing in eastern Nepal. At any rate, your birds are not glossy enough and are too white at the base of the nape feathers to be *tibetosinensis*'.

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